SANTA CRUZ BIOTECHNOLOGY, INC.

TTC38 (F-1): sc-514613

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The tetratricopeptide repeat (TPR) motif is a degenerate, 34 amino acid sequence found in many proteins, which mediates protein-protein interactions in various pathways. At the sequence level, there can be up to 16 tandem TPR repeats, each of which has a helix-turn-helix shape that stacks on other TPR repeats to achieve ligand binding specificity. TTC38 (tetratricopeptide repeat domain 38) is a 469 amino acid protein that contains three TPR repeats and belongs to the TTC38 family. The gene that encodes TTC38 consists of over 26,000 bases and maps to 22q13.31. Housing over 500 genes, chromosome 22 is the second smallest chromosome in the human genome. Mutations in several of the genes that map to chromosome 22 are involved in the development of Phelan-McDermid syndrome, Neurofibromatosis type 2, autism and schizophrenia. In addition, translocations between chromosomes 9 and 22 may lead to the formation of the Philadelphia Chromosome and the subsequent production of the novel fusion protein Bcr-Abl, a potent cell proliferation activator found in several types of leukemias.

REFERENCES

1. Briegel, W. and Cohen, M. 2004. Chromosome 22q11 deletion syndrome and its relevance for child and adolescent psychiatry. An overview of etiology, physical symptoms, aspects of child development and psychiatric disorders. Z. Kinder Jugendpsychiatr. Psychother. 32: 107-115.
2. Gothelf, D., et al. 2008. Genes, brain development and psychiatric phenotypes in velo-cardio-facial syndrome. Dev. Disabil. Res. Rev. 14: 59-68.
3. Sathyamoorthi, S., et al. 2009. Array analysis and molecular studies of INI1 in an infant with deletion 22q13 (Phelan-McDermid syndrome) and atypical teratoid/rhabdoid tumor. Am. J. Med. Genet. A 149A: 1067-1069.
4. Vorstman, J.A., et al. 2009. Association of the PIK4CA schizophrenia-susceptibility gene in adults with the 22q11.2 deletion syndrome. Am. J. Med. Genet. B, Neuropsychiatr. Genet. 150B: 430-433.

CHROMOSOMAL LOCATION

Genetic locus: TTC38 (human) mapping to 22q13.31; Ttc38 (mouse) mapping to 15 E2.

SOURCE

TTC38 (F-1) is a mouse monoclonal antibody raised against amino acids 112-396 mapping within an internal region of TTC38 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TTC38 (F-1) is available conjugated to agarose (sc-514613 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514613 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514613 PE), fluorescein (sc-514613 FITC), Alexa Fluor® 488 (sc-514613 AF488), Alexa Fluor® 546 (sc-514613 AF546), Alexa Fluor® 594 (sc-514613 AF594) or Alexa Fluor® 647 (sc-514613 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514613 AF680) or Alexa Fluor® 790 (sc-514613 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

TTC38 (F-1) is recommended for detection of TTC38 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TTC38 siRNA (h): sc-75026, TTC38 siRNA (m): sc-154775, TTC38 shRNA Plasmid (h): sc-75026-SH, TTC38 shRNA Plasmid (m): sc-154775-SH, TTC38 shRNA (h) Lentiviral Particles: sc-75026-V and TTC38 shRNA (m) Lentiviral Particles: sc-154775-V.

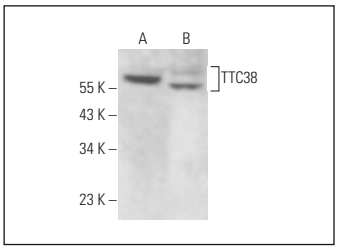
Molecular Weight of TTC38: 53 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or c4 whole cell lysate: sc-364186.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



TTC38 (F-1): sc-514613. Western blot analysis of TTC38 expression in Hep G2 (**A**) and c4 (**B**) whole cell lysates.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.